F. No. J-11011/229/2008-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi - 110003
E-mail: dirind-moefcc@gov.in
Tel: 011-24695368
Dated: 27.05.2019

To

M/s. Gallantt Ispat Limited
AL-5 Sector 23 GIDA Industrial Area,
Sahjanwa, District Gorakhpur
Uttar Pradesh-273209.

Subject: Expansion of Integrated Steel Plant; MS Billet (from 330000 MTPA to 653400 MTPA), Captive power (from 53 MW to 80.5 MW), Sponge Iron (from 297000 MTPA to 594000 MTPA) and New Pellet plant establishment-792000 MTPA by M/s. Gallantt Ispat Limited at AL-5 Sector 23 GIDA Industrial Area, Sahjanwa, District – Gorakhpur Uttar Pradesh–Prescribing Terms of Reference.

Sir,

This has reference to your online application vide proposal no. IA/UP/IND/93041/2019dated 9th January, 2019 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the project proponent

2. M/s Gallantt Ispat Limited, proposes to install expansion of existing Integrated Sponge Iron Plant, Steel Melting Shop (Induction Furnace), Captive Power plant along with proposed palletisation plant unit. It is proposed to setup the plant for capacity (expansion): Sponge Iron from 297000 MTPA to 594000 MTPA, Steel Billets from 330000 MTPA to 653400 MTPA, Captive Power from 53.0 MW to 80.5 MW and Proposed Pellet Plant of 792000 MTPA at AL-5 Sector 23 GIDA Industrial Area, Sahjanwa, District – Gorakhpur.

3. The existing project was accorded environmental clearance vide letter no. F. No J – 11011 / 229 / 2008 - IA. II(I) dated 18th October 2017. Consent to Operate was accorded by Uttar Pradesh State Pollution Control Board vide Letter. no. 272/17.11.17 (Air) and Letter No. 267/17.11.17. Validity of CTO is up to 31st December 2019.

4. The proposed expansion will be done in existing unit located at AL-5 Sector 23 GIDA Industrial Area, Tehsil: Sahjanwa, District: Gorakhpur State: Uttar Pradesh.

5. The land area acquired for the proposed plant is 45.9 Ha. Out of which 66.7 % of area is used for plant machinery, storage of raw material, infrastructure, transport and storage final products and 33.3 % of total project land is already developed as green belt.

6. There is no any National Park/WL /No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

7. Total project cost is approx 602.53 Crore rupees. Proposed employment generation from proposed project after expansion will be through deployment of 405 persons in direct employment and 750 in indirect employment.

8. The targeted production capacity after expansion will be Sponge Iron from 297000 MTPA to 594000 MTPA, Steel Billets from 330000 MTPA to 653400 MTPA, Captive Power from 53.0 MW to 80.5 MW. A new pellet plant will be installed of 792000 MTPA capacity. Iron ore fines/ coal for the plant will be procured from Open Market. Raw material (Iron ore fines/ coal) will be transported through Railway rakes.

9. The proposed capacity for different products for new site area as below:

S. No	Proposed	Existing	Proposed expansion	Total Manufacturing Capacity (after expansion)
1	Sponge Iron Plant with a capacity of 2,97,000 MTPA (addition of one Kiln of 750 MT/Day and one Kiln of 150 MT/Day with existing two Kilns of 450 MT/Day)	297000 MTPA	297000 MTPA	594000 MTPA
2	Pelletisation Plant	New Establishment of 792000 MTPA		
3	M. S. Billets via induction Furnace, Continuous Caster Machine, Laddle Refining Furnace Route (653400 MT Steel Billets with 2 Induction Furnace of 22.5 MT, 2 Induction Furnace of 27.5 MT, 4 Induction Furnaces of 30 MT (330 working days & 9 Heats/Day).	330000 MTPA	323400 MTPA	653400 MTPA
Captive Power Plant				
	Particular	**Existing**	**Proposed**	**Total**
4	CPP	53 MW	27.5 MW	80.5 MW

10. Power requirement 81 MW after expansion. The above demand will be met from own Captive power plant of (80.5 - 100 % Self Consumption) with 10 MW of UPPCL power. DG Set Details 02 nos. 1000KVA, 01 nos. 630 KVA, 01 nos. 2000 KVA and 01nos. 1250 KVA.

11. Required Raw material and its sources are given below :

S.No.	Material	Existing Consumption	Total Consumption after expansion	Source
Sponge Iron Plant				
1	Iron Ore	237600 MTPA	66528 MTPA	Open Market
2	Pellets	237600 MTPA	794772 MTPA	Self / From Manufacturer
3	Coal	267300 MTPA	534600 MTPA	Import/linkage auction/Open Market

S.No.	Material	Existing Consumption	Total Consumption after expansion	Source
4	Dolomite	14850 MTPA	29700 MTPA	Open Market
Palletisation Plant				
1.	Iron Ore Fines	-	883872 MTPA	Open Market
2.	Bentonite	-	6336 MTPA	Open Market
3.	Lime Stone	-	7920 MTPA	Open Market
4.	Dolomite	-	3960 MTPA	Open Market
5.	Coal	-	43560 MTPA	Open Market
Steel Melt Shop Division (Induction Furnace with Continues Caster)				
1	Sponge Iron	297000 MTPA	594000 MTPA	Self
2	MS Scraps	109267 MTPA	200779 MTPA	Open market
3	Ferro Alloy	4950 MT	7841 MT	Open Market
Captive power Plant (AFBC)				
1	Coal	124740 MTPA	214500 MTPA	Linkage Auction/ Open Market
2	Rice Husk	83160 MTPA	35244 MTPA	Open Market
3	Dolochar	41580 MTPA	80190 MTPA	Self Generated

12. Water consumption for the proposed project after expansion will be 6776 KLD and waste water generation will be nil. Domestic waste water is being treated in Sewage treatment plant of adequate capacity same will be utilised after expansion also and industrial waste water generated will be treated in neutralisation pit and after treatment 100 % recycling will be done.

13. The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

14. Name of EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd., Jaipur QCI Accredited [S.No. 45, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019]

15. The proposal was considered by the Reconstitute Expert Appraisal Committee (Industry-I) during its 4th meeting held on **20th to 22nd February, 2019** for prescribing ToRs for undertaking detailed EIA/EMP study. The PP has made detailed presentation on proposal along with EIA consultant.

Recommendations of the Committee: -

16. After detailed deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at Annexure I read with additional ToRs at Annexure-2:**

i. Confirmation regarding the transportation of iron ore, fluxes and coal only by Rail by providing dedicated railway siding to the plant site.
ii. Explore the possibility of use of river water/ water from the other industries located in the Gorakhpur industrial area in order to reduce the ground water drawl.
iii. Scheme for ground water recharge more than the amount extracted from the ground shall be submitted. The recharge can be done within the factory premises and outside the factory premises also.
iv. Particulate matter emissions from the process stacks shall be less than 30 mg/Nm3.
v. Scheme for achieving zero liquid discharge shall be submitted.
vi. Confirmation regarding use of FO only in reheating furnace.
vii. Study on hydrogeology of the area shall be submitted.
viii. Permission for withdrawal of ground water shall be submitted.
ix. Revised layout plan for maximizing the greenbelt around the plant site.
x. Public Hearing to be conducted by the concerned State Pollution Control Board.
xi. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
xii. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

17. The undersigned is directed to inform that the Ministry of Environment, Forest and Climate Change (MoEF&CC) after accepting the recommendation of the EAC (Industry-I), hereby decided to accord above-said specific ToRs, in addition to the standard ToRs and Sector Specific ToRs as enclosed **at Annexure I read with additional ToRs at Annexure-2** for carrying out detailed EIA/EMP for the above project.

18. It is requested that the draft EIA Report may be prepared in accordance with the above mentioned specific ToRs and enclosed generic ToRs and additional ToRs and thereafter further necessary action including conduct of public consultation may be taken for obtaining Environment Clearance in accordance with the procedure prescribed under the EIA Notification, 2006 as amended.

19. The ToRs are valid for a period of three years from today i.e. 27.05.2019 and will expire on 26.05.2022. However, this period could be further extended by a maximum period of one year provided an application is made by the project proponent at least three months before the expiry of the validity period, together with updated Form-I, based on proper justification.

This issues with the approval of competent authority.

(A.K. Agrawal)
Director

Copy to:-

i. **The Secretary,** Department of Environment, Government of Uttar Pradesh, Secretariat Lucknow.

ii. **The Additional Principal Chief Conservator of Forests (C),** Ministry of Environment, Forest and Climate Change, Regional Office (CZ), Kendriya Bhawan, 5th Floor, Sector "H", Aliganj, Lucknow – 226020,

iii. **The Chairman,** Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.

iv. **The Chairman,** Uttar Pradesh State Pollution Control Board, PICUP Bhawan, 3rd Floor, B-Block, Vibhuti Khand, Gomti Nagar Lucknow – 226 010.

v. **The Member Secretary,** Central Ground Water Authority, 18/11, Jamnagar House, Man Singh Road, New Delhi-110011.

vi. **The District Collector, Gorakhpur** District, Government of Uttar Pradesh.

vii. Guard File/Record File/Monitoring File.

viii. MoEF&CC Website

(A.K. Agrawal)
Director

ANNEXURE –I

GENERIC TERMS OF REFERENCE (ToR) IN RESPECT OF INDUSTRY SECTOR

1. Executive Summary
2. Introduction
   - i. Details of the EIA Consultant including NABET accreditation
   - ii. Information about the project proponent
   - iii. Importance and benefits of the project

3. Project Description
   - i. Cost of project and time of completion.
   - ii. Products with capacities for the proposed project.
   - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
   - iv. List of raw materials required and their source along with mode of transportation.
   - v. Other chemicals and materials required with quantities and storage capacities
   - vi. Details of Emission, effluents, hazardous waste generation and their management.
   - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
   - viii. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
   - ix. Process description along with major equipment and machineries, process flow sheet (Quantative) from raw material to products to be provided
   - x. Hazard identification and details of proposed safety systems.
   - xi. Expansion/modernization proposals:
     - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
     - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

   - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
   - ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
   - iii. Co-ordinates (lat-long) of all four corners of the site.
   - iv. Google map-Earth downloaded of the project site.
   - v. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial

area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.

vi. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.

vii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)

viii. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area

ix. Geological features and Geo-hydrological status of the study area shall be included.

x. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)

xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.

xii. R&R details in respect of land in line with state Government policy

5. Forest and wildlife related issues (if applicable):

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).

ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha).*

iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.

iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.

v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife

6. Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

ii. AAQ data (except monsoon) at 8 locations for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.

vi. Ground water monitoring at minimum at 8 locations shall be included.
vii. Noise levels monitoring at 8 locations within the study area.
viii. Soil Characteristic as per CPCB guidelines.
ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
xi. Socio-economic status of the study area.

7. Impact Assessment and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
v. Details of stack emission and action plan for control of emissions to meet standards.
vi. Measures for fugitive emission control
vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre-designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analysed data of abovementioned parameters as per age, sex, duration of exposure and department wise.

iii. Annual report of health status of workers with special reference to Occupational Health and Safety.

iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

9. Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Corporate Environment Responsibility (CER)

i. To address the Public Hearing issues, an amount as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018 amounting to Rs. .....crores, shall be earmarked by the project proponent, towards Corporate Environment Responsibility (CER). Distinct CER projects shall be carved out based on the local public hearing issues. Project estimate shall be prepared based on PWD schedule of rates for each distinct Item and schedule for time bound action plan shall be prepared. These CER projects as indicated by the project proponent shall be implemented along with the main project. Implementation of such program shall be ensured by constituting a Committee comprising of the project proponent, representatives of village Panchayat & District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office. No free distribution/donations and or free camps shall be included in the above CER budget

12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13. A tabular chart with index for point wise compliance of above ToRs.

14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCBshall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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ANNEXURE-2

METALLURGICAL INDUSTRY (FERROUS AND NON-FERROUS)

i. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
ii. Emission from sulphuric acid plant and sulphur muck management.
iii. Details on installation of Continuous Emission Monitoring System with recording with proper calibration system
iv. Details on toxic metals including fluoride emissions
v. Details on stack height.
vi. Details on ash disposal and management
vii. Complete process flow diagram describing process of lead/zinc/copper/ aluminium, *etc.*
viii. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
ix. Details on Holding and de-gassing of molten metal from primary and secondary aluminium, materials pre-treatment, and from melting and smelting of secondary aluminium
x. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
xi. Trace metals in waste material especially slag.
xii. Plan for trace metal recovery
xiii. Trace metals in water

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Executive Summary

Executive summary of the report in about 8-10 pages incorporating the following:

i. Project name and location (Village, Dist, State, Industrial Estate (if applicable)
ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
iv. Process description in brief, specifically indicating the gaseousemission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
vi. Capitalcost of the project, estimated time of completion
vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest, eco-sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
x. Likely impact of the project on air, water, land, flora-fauna and nearby population
xi. Emergency preparedness plan in case of natural or in plant emergencies
xii. Issues raised during public hearing (if applicable) and response given
xiii. CSR plan with proposed expenditure.
xiv. Occupational Health Measures
xv. Post project monitoring plan